Advice on NIH SBIR & STTR Grant Applications – Choices & FY2005 Data

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June 2006

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Hello, I am Gregory Milman and in this presentation I provide FY2005 data that may help you make some difficult choices for your NIH SBIR or STTR application. This presentation was updated in June 2006. Send your comments, suggestions, and criticisms to gmilman@niaid.nih.gov.

Choices To Consider

- Which institute or center (IC)?
- Which receipt date?
- SBIR or STTR?
- Program announcement or unsolicited?
- Normal or fast-track?
- Requested budget (normal or outside guidelines)?
- Requested time (one or two years)?
- Should you revise your application?

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The following are some of the choices you should consider.

- How do you select which institute or center, that is IC, to target?
- Which of the three receipt dates is best?
- Do you apply for an SBIR or STTR award?
- Should you look for a relevant program announcement?
- Should you submit a fast-track application?
- How much money and time should you request?
- When should you revise your application?

Interpreting Statistical Data

- Data from FY2005 may help you plan your strategy.
- Like the stock market, FY2005's performance is no guarantee that the future will be the same.
- Be careful how you use this information.

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I will share with you FY2005 data that may help you plan your SBIR or STTR application strategy.

Like the stock market, one year's performance is no guarantee that another year's will be the same.

Be careful how you use this information. Ask NIH staff to describe changes, if any, between FY2005 and today.

NIH Awarding Institutes and Centers

Acronym	Code	Name
NCI	CA	National Cancer Institute
NCCAM	AT	National Center for Complementary and Alternative Medicine
NCRR	RR	National Center for Research Resources
NCMHD	MD	National Center on Minority Health and Health Disparities
NEI	EY	National Eye Institute
NHLBI	HL	National Heart, Lung, and Blood Institute
NHGRI	HG	National Human Genome Research Institute
NIAID	AI	National Institute of Allergy and Infectious Diseases
NIAMS	AR	National Institute of Arthritis and Musculoskeletal and Skin Diseases
NIBIB	EB	National Institute of Biomedical Imaging and Bioengineering
NICHD	HD	National Institute of Child Health and Human Development
NIDCR	DE	National Institute of Dental and Craniofacial Research
NIDDK	DK	National Institute of Diabetes and Digestive and Kidney Diseases
NIEHS	ES	National Institute of Environmental Health Sciences
NIGMS	GM	National Institute of General Medical Sciences
NIMH	MH	National Institute of Mental Health
NINDS	NS	National Institute of Neurological Disorders and Stroke
NINR	NR	National Institute of Nursing Research
NIA	AG	National Institute on Aging
NIAAA	AA	National Institute on Alcohol Abuse and Alcoholism
NIDCD	DC	National Institute on Deafness and Other Communication Disorders
NIDA	DA	National Institute on Drug Abuse
NLM	LM	National Library of Medicine

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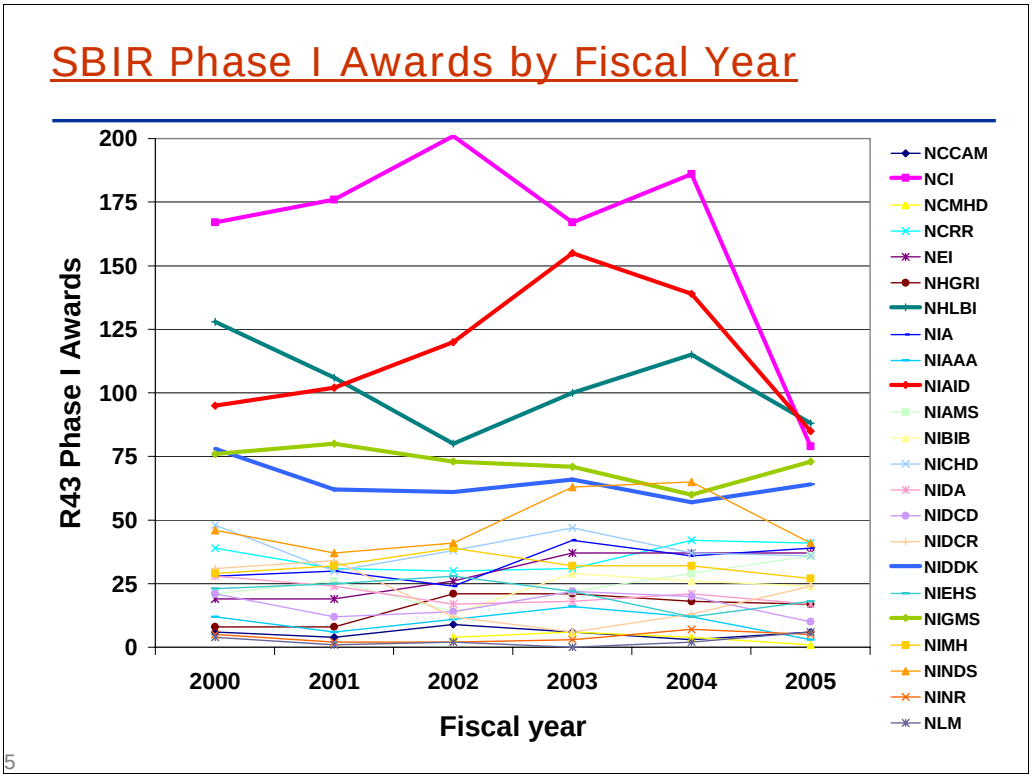
This slide lists the acronyms, two letter grant codes, and names of the twenty-three NIH Institutes and Centers that award grants. Each name is a link to the IC's website.

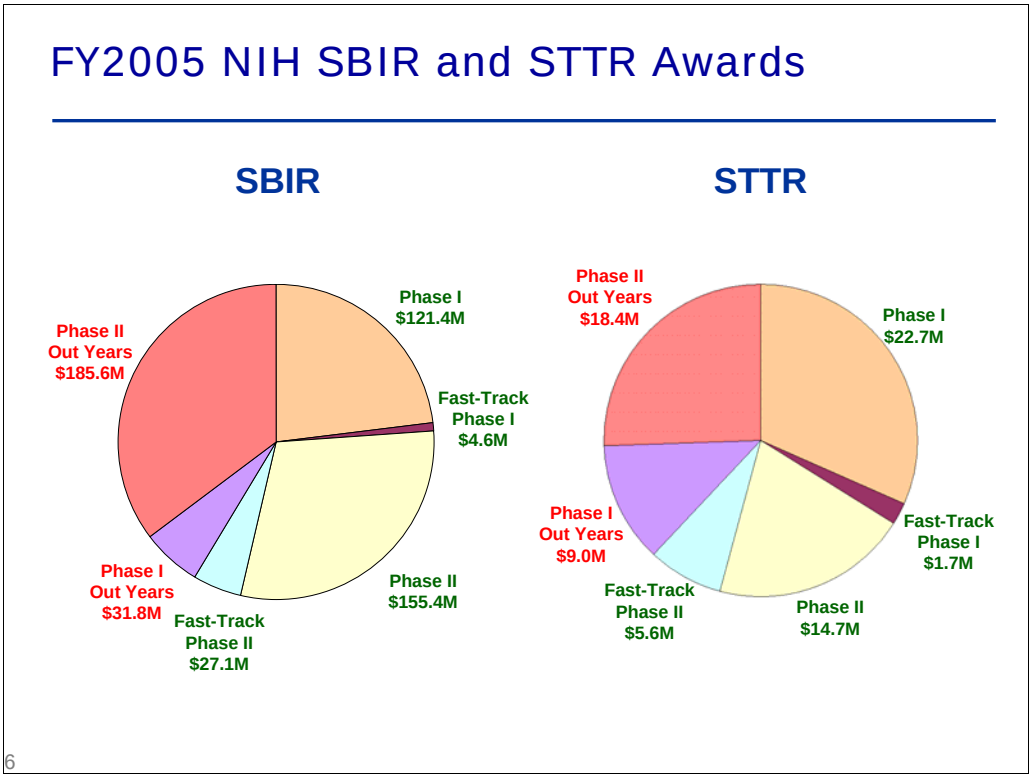


This slide summarizes the number of SBIR Phase I awards for each IC in fiscal years 2000-2005. You can use the slide title link to view the original data including awards for other NIH grant mechanisms. The heavy lines are the only ICs (NCI, NHLBI, NIAID, NIDDK and NIGMS) that awarded over 75 SBIR grants in FY2005. The light lines are the ICs awarding 75 or fewer SBIR grants in FY2005. The same colors and line weights are used in the slide on Phase I SBIR success rates by fiscal year.

The number of SBIR Phase I awards for each IC varies from year to year. ICs probably made fewer Phase I awards over the last two years for three reasons.

1. The doubling of the NIH budget from fiscal year 1999 through 2003 ended and the ICs received inflation or less increases.
2. Phase I awards in fiscal year 2003 progressed into Phase II awards using more of the mandated funds.
3. The ICs began using more of the mandated funds on Phase I and Phase II awards for longer than normal times and for more than normal amounts.

As a result, applications have required increasingly better scores to be funded.

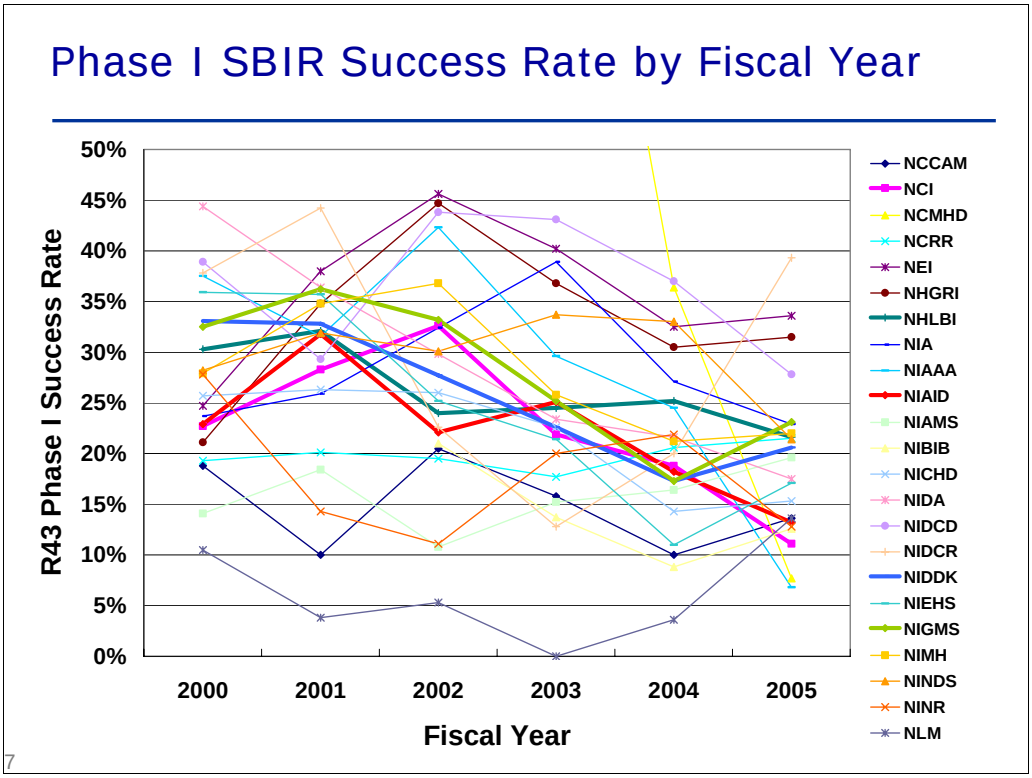


This slide summarizes how NIH spent SBIR and STTR funds in FY2005.

Approximately 40% of both SBIR and STTR funds paid non-competing (out years) of Phase I and Phase II grants (shown in red type). Only 23% of SBIR funds and 32% of STTR funds paid competing Phase I awards with the remainder going to competing Phase II awards.

Funds available for competing awards are shown in green type. A small increase in the number of Phase II awards can significantly decrease the number of Phase I awards because Phase II awards have much larger budgets. Fewer Phase I awards mean fewer Phase II awards in following years. With fewer Phase II awards in those years, there will be a corresponding increase in Phase I awards. As a result, the relative number of Phase I and II awards for each IC can fluctuate from year to year.

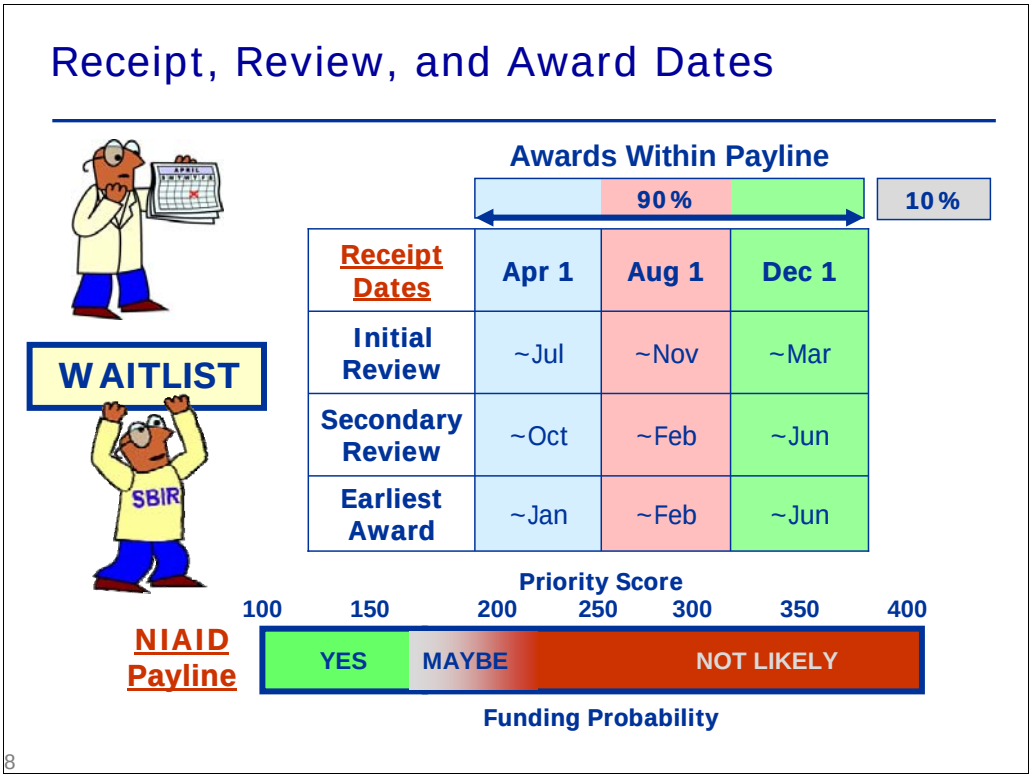
Because a low number of Phase I SBIR grants were awarded in FY2005, we may expect to see an increase in the number of Phase I awards in FY2006 and FY2007 as fewer Phase II awards are made.



This slide shows the success rate for SBIR Phase I applications for each IC for fiscal years 2000 to 2005. As in the slide on SBIR Phase I awards by fiscal year, heavy lines denote the five ICs making the most awards in 2005.

The data in this slide show that it would be very difficult to predict the SBIR Phase I success rate at a specific IC based on the success rates in previous years. However, the success rates for those ICs awarding the most SBIR Phase I grants shows a definite downward trend from 2002 to 2005.

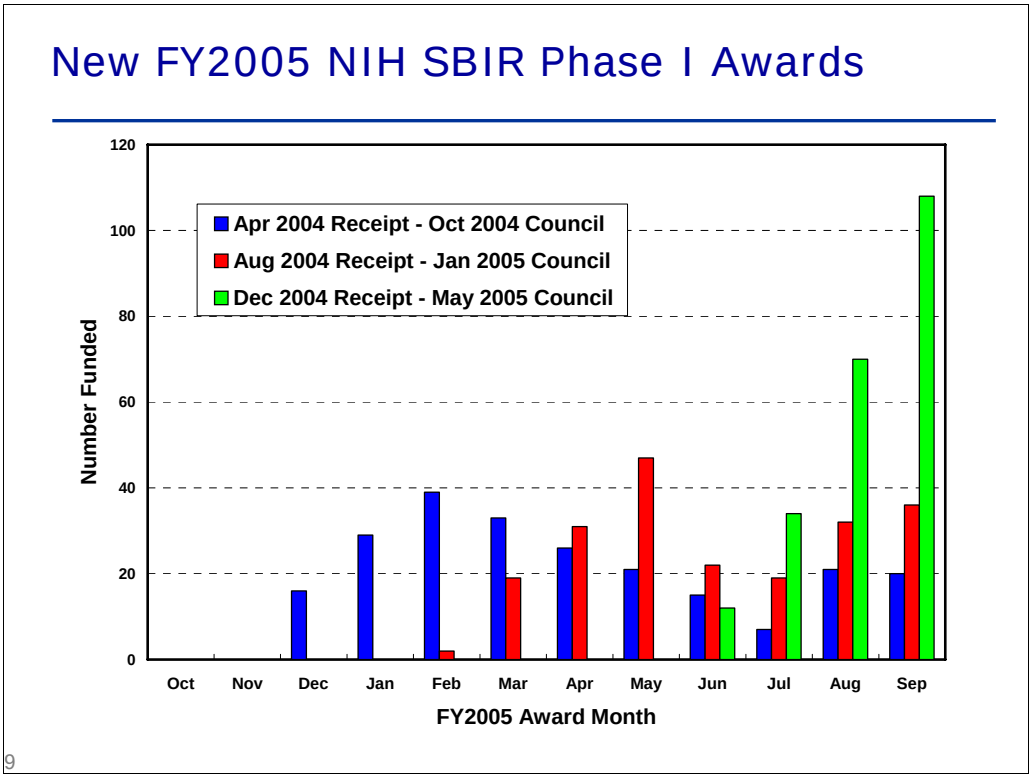
The success rates vary considerably among the smaller ICs probably due to variability in the number of applications each receives. You can ask an IC's program staff what the success rate is likely to be based on funds available, awards to date, and the number of applications received but you may not get an answer.



The Receipt Dates link takes you to the official NIH information on receipt, review, and award dates. The award dates in this table differ somewhat from the official table because they are based on the actual FY2005 data shown in the next slide. NIH operates on a fiscal year that begins October 1st and ends September 30th. Applications received in April are the first to be funded the following fiscal year. Because the NIH budget is often delayed in Congress, funding of applications received in April is also often delayed.

Review committees assign scored applications a priority from 100 being the best to 500 being the worst. Based on historical data, the NIAID budget office sets a conservative "payline" around 170, and we fund applications with scores up to the payline. A conservative payline ensures that applications received later in the fiscal year do not go unfunded because we spent our funds on poorer scoring applications. The payline link takes you to public NIAID paylines for all types of grants. Other ICs may not use paylines or may not make their paylines public.

Think of applications above but close to the payline as being on a “waitlist” – they may or may not be funded. Suppose NIAID spends about 90% of its funds on all the applications with scores up to the payline. At the end of the fiscal year, we use the remaining 10% funds to offer awards to the best applications on the waitlist. As a result, if you receive a score under the payline and we have a budget, you are likely to be funded without delay. If you receive a score over 220, you are not likely to be funded at all. Finally, if you are on the waitlist you probably will wait until August or September to learn if your application will be funded.

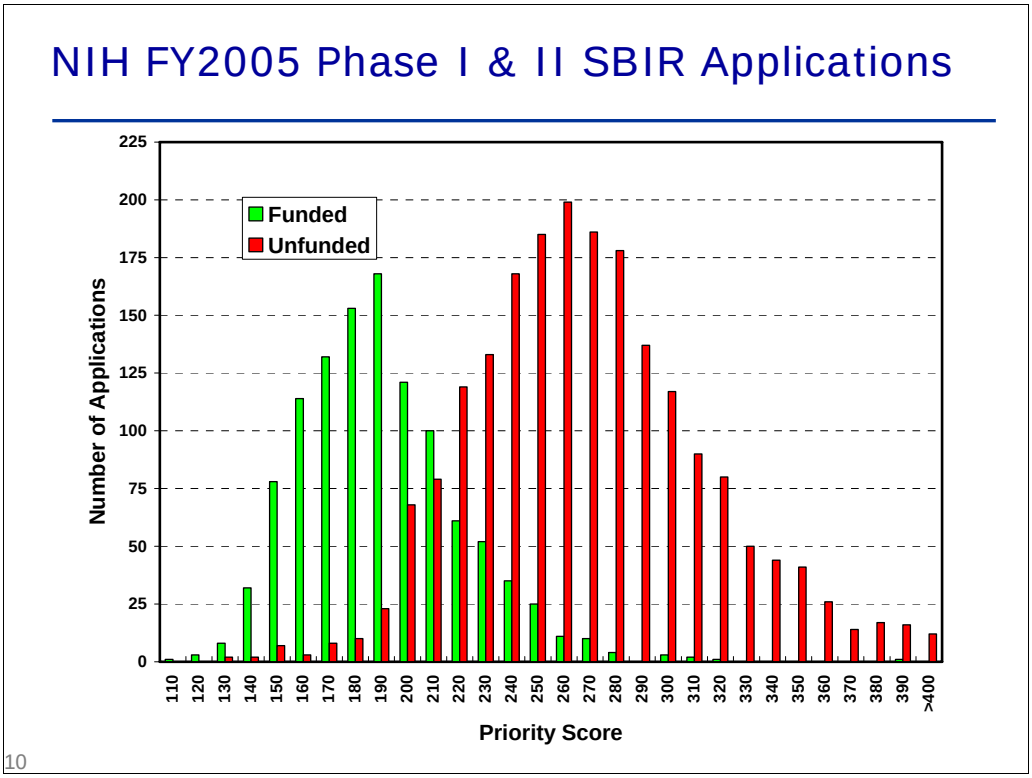


This chart shows the award month for all new FY2005 NIH SBIR Phase I applications for all three receipt dates, April in blue, August in Red and December in Green. The earliest award from the Apr 2004 receipt date was in December 2004, with most awards made 10 to 12 months after the April 2004 receipt date.

Applications from the August and December receipt dates began being awarded about seven months following receipt. Applications on the waitlist for all receipt dates were awarded in August or September.

Even though April applicants may wait longer to receive an award, the April receipt date has some advantages. First, if your application requires revision, you will know early enough to revise it for the August receipt date giving you a second chance at funding in the same fiscal year and at the same payline.

Second, NIH has a number of eligibility requirements that are only examined immediately before an award. See my Just-in-Time slide for details. Otherwise fundable applications deficient in any of these requirements have till the end of the fiscal year to become eligible. The April receipt date applications whose awards were delayed until May through August may have had eligibility issues. Otherwise fundable August and December receipt date applications have less time to meet eligibility requirements before the end of the fiscal year and risk not being funded.



The green bars in this chart show the number of FY2005 NIH Phase I and II SBIR applications that were funded within each 10-point priority score range.

The red bars show applications that were not funded. Not shown on this chart are approximately an equal number of applications that were both unscored and unfunded.

About 87% of applications that had priority scores under 200 were funded. Unfunded applications with outstanding scores probably had eligibility issues that prevented funding.

Program Announcements

- Program announcements (PAs) are NIH staff "wish lists."
- Review committees usually evaluate an application responding to a PA no differently than any other application.
- You can handicap your application by trying to make it fit a PA.
- Respond to a PA only if the research you want to propose exactly matches the PA request.
- You do not need to respond to PA to request an award over $100,000.
- Most, but not all FY2005 multi-year awards went to applications in response to PAs.

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Program Announcements, that is PAs, are written by NIH extramural program staff to encourage grant applications that will fill gaps in their portfolios.

Reviewers evaluate an application based on its science and may not even read the PA to which an application responds.

You may handicap your application if you try to "fit a square peg into a round hole."

I suggest you respond to a PA if and only if the research you want supported exactly matches the PA request.

Applicants are attracted to a PA that states that they may request over $100,000 a year and multi-year funding. You do not need to respond to a PA to request over $100,0000. All ICs will award over $100,000 a year if the request is well justified and approved by the review committee. I show you the amount of award for all FY2005 Phase I applications in a following slide.

Most, but not all FY2005 multi-year awards went to applications in response to PAs. This could be because few other applicants requested longer time. If you need to apply for a two- or three-year Phase I grant, check first with the appropriate IC staff to learn if your application would be accepted.

FY2005 Phase I Applications

Type	Received	Funded	Award Rate
SBIR	4700	757	16.1%
No PA	3605	585	16.2%
PA	1095	172	15.7%
STTR	692	136	19.7%
No PA	572	118	20.6%
PA	120	18	15.0%
FAST-TRACK			
SBIR	199	29	14.6%
STTR	44	11	25.0%

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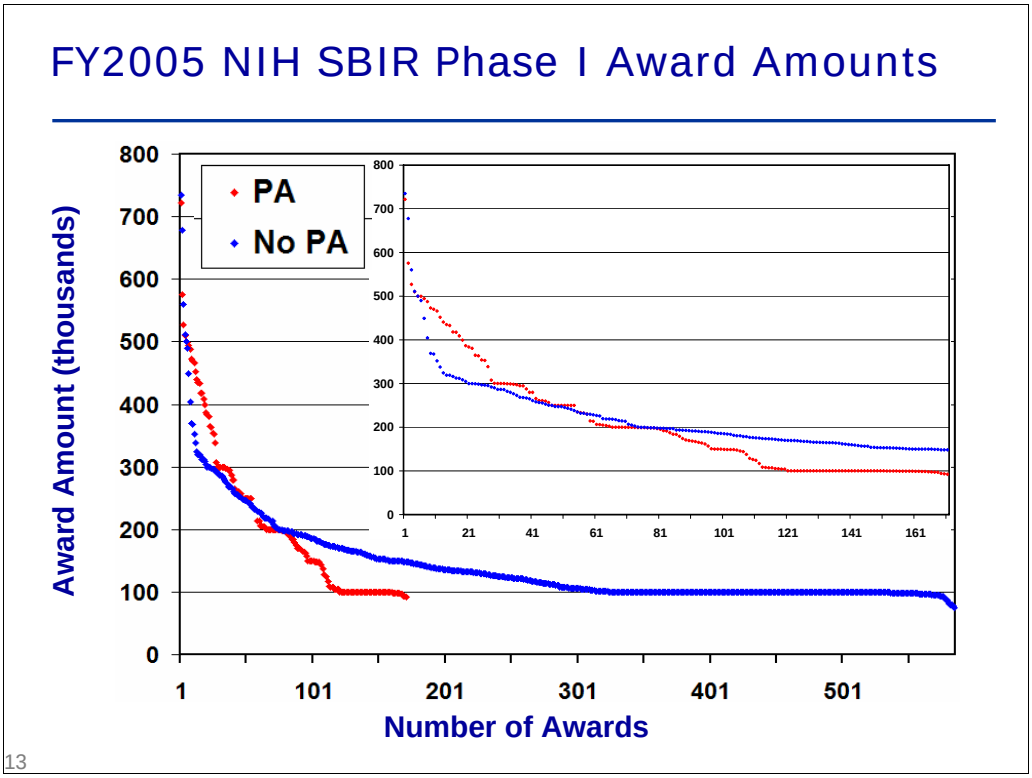
The upper part of this table shows the number of FY2005 NIH Phase I SBIR applications received and funded and the award rate for applications either responding or not responding to a program announcement. As a group, applicants responding to a PA had a lower award rate than applicants not responding to a PA.

The middle section of this table shows the data for STTR applications.

The lower part of this table shows the data for fast-track applications. The award rate for fast-track applications was slightly lower than that for Phase I applications. The low number of STTR applicants makes it difficult to interpret the significance of the 25% award rate.



All 585 FY2005 new NIH SBIR Phase I grants are arranged by descending amount of award on the y-axis. Each red point is a grant in response to a PA and each blue point is a grant not in response to a PA. Note that about half of the 585 SBIR Phase I recipients not responding to a PA received more than the "normal" $100,000 award.

The inset graph shows an enlargement of the region that includes the 172 awards in response to PAs. Similar numbers of applicants responding or not responding to a PA received Phase I awards in excess of the normal amount showing you do not have to respond to a PA to be awarded more than $100,000 per year.

FY2004 & FY2005 NIH Phase II Applications

Type	Received	Funded	Award Rate
SBIR FY2004	882	285	32.3%
STTR FY2004	71	30	42.3%
SBIR FY2005	955	295	30.9%
STTR FY2005	76	31	40.8%

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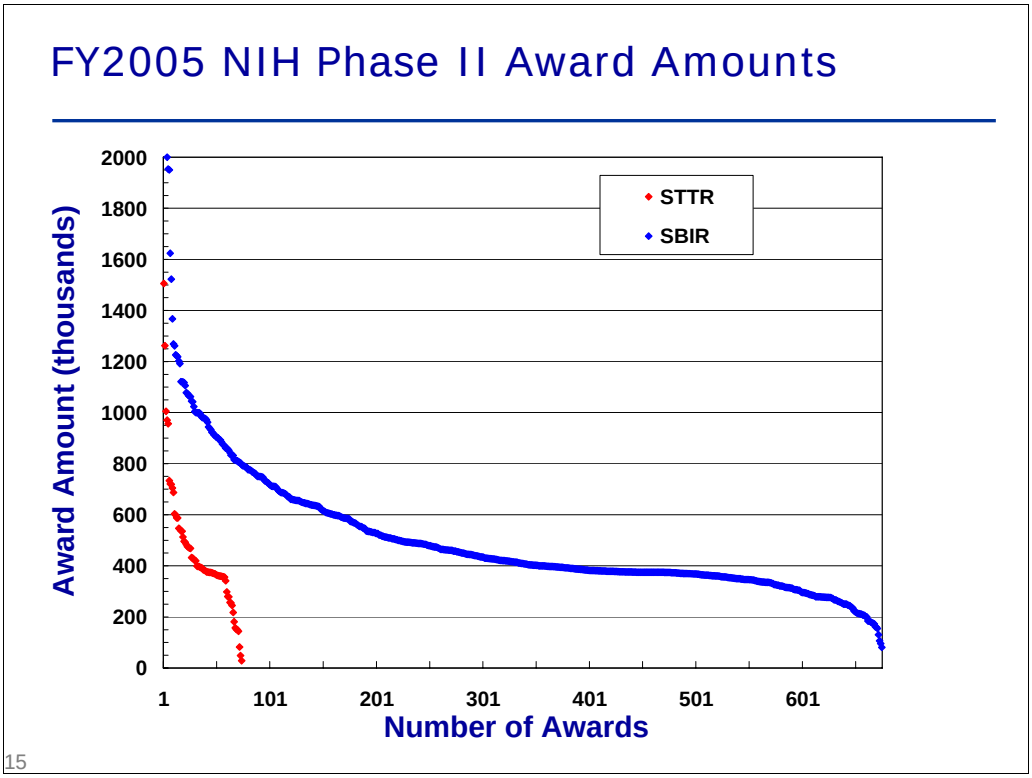
This table shows the number of Phase II SBIR and STTR applications received and funded, and the award rate for each application type for FY2004 and FY2005. Award rates were about the same in both years. In both FY2004 and FY2005, the award rate for STTR Phase II applications is significantly higher than that for SBIR applications.



This graph shows the award amount for all FY2005 Phase II SBIR and STTR grants, including competing and continuing awards. The annual award amount is on the y-axis and each point on the x-axis is an individual grant. The red points are STTR awards, and the blue points are SBIR awards. About half of the applicants received Phase II awards in excess of the "normal" annual amount of $375,000.

Revised FY2004 NIH Phase I Applications

Type	Received	Funded	Award Rate
Total SBIR	5364	967	18.0%
Initial	4250	717	16.9%
1st revision	967	206	21.3%
2nd revision	147	44	29.9%
Total STTR	633	213	33.6%
Initial	511	158	30.9%
1st revision	106	52	49.1%
2nd revision	16	3	18.8%

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This FY2004 table illustrates that revised applications have a higher probability of funding than initial applications.

The overall award rate for FY2004 SBIR applications was 18%, but that for initial applications was 17%, increasing to 21% and 30% respectively for first and second revisions. Only about a quarter of unsuccessful applications were revised once, and only about a quarter of unsuccessful revised applications were revised a second time.

The overall award rate for FY2004 STTR applications was 34%, but that for initial applications was 31%, increasing to 49% for the first revision. The number of second revision STTR applications submitted is too small to know if the decrease in award rate is significant.

More Presentations

TOPICS

- Basics
- Choices and FY2005 Data
- Grantsmanship
- Electronic Application
- NIH Timeline

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Thank you for watching this presentation. Close this window to select another topic.